

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 5, 2005. Claims 2 to 11, 14 to 24, 26, and 28 to 34 are in the application, of which Claims 14, 26, 28, 29, 32 and 33 are independent. Reconsideration and further examination are respectfully requested.

Claims 2 to 11, 14 to 24, 26, 28 to 33 have been rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,848,397 (Marsh). The rejections are respectfully traversed.

The present invention relates to scheduling the display of items of information on a display apparatus. The display apparatus includes a display unit and a user interface. The items of information are scheduled for display in accordance with a priority value that is a function of time. As one example, particular items of information, such as advertisements, may have higher priorities at certain times of the day. When a user interacts with the user interface of the display apparatus a user interrupt is generated and the scheduled items of information are cleared. An estimate is made of when the user will finish interacting with the user interface, the estimating being performed repeatedly until the user interaction with the user interface is finished. For each estimated time, the items of information are rescheduled for display in accordance with priority values at the estimated time. If the user is not interacting with the user interface at the estimated time, the items of information are displayed as scheduled.

By clearing and rescheduling items of information in response to a user interrupt, the present invention more effectively prioritizes items of information. In this

way, the present invention can help reschedule items of information around unpredictable user interaction to display the most effective item of information at a particular time.

With specific reference to the claims, independent Claim 14 recites a computer-executable method of displaying items of information on a display apparatus comprising a display unit and a user interface. Each item of information has an associated priority which is a function of time. The method comprises steps of (a) scheduling items of information in accordance with values of the priorities, said scheduling determining an order for displaying the items of information on the display apparatus, (b) generating a user interrupt in response to a user interacting with the user interface, (c) clearing the scheduled items of information in response to the user interrupt, (d) estimating a time when the user will finish interacting with the user interface, said estimating being performed repeatedly until the user interaction with the user interface is finished, (e) for each estimated time, rescheduling items of information for display on the display apparatus in accordance with the values of the priorities at the estimated time, and (f) displaying the information as scheduled, if the user is not interacting with the user interface at the estimated time.

Independent Claims 26 and 28 are apparatus and computer readable medium claims, respectively, that correspond generally the method of independent Claim 14.

The applied art is not seen to disclose or suggest the features of independent Claims 14, 26 and 28, and in particular, is not seen to disclose or suggest at least the features of (1) generating a user interrupt in response to a user interacting with the user interface, (2) clearing the scheduled items of information in response to the user interrupt, (3) estimating a time when the user will finish interacting with the user interface, (4) performing repeated estimations until the user interaction with the user interface is

finished, (5) for each estimated time, rescheduling items of information for display on the display apparatus in accordance with the values of the priorities at the estimated time, and (6) actually displaying in accordance with the schedule if the user is not interacting at the estimated time.

Marsh relates to scheduling the presentation of advertisements to computer users by assigning the advertisements to one of a plurality of advertisement queues and sorting the advertisements in a queue by predetermined characteristics. (See column 8, line 54 to column 9, line 6 and Figure 6 of Marsh). Marsh mentions that a user may request additional information by clicking on a specified portion of a banner advertisement. However, Marsh provides no information as to how, or if, the additional material is displayed. In particular, Marsh is not seen to disclose or suggest that the user's request generates an interrupt, much less disclose or suggest clearing of the scheduled items of information in response to the user interrupt. On the contrary, Marsh does not even disclose or suggest clearing displayed items from the screen in order to display the additional information.

In this regard, Applicant disagrees with the Office Action's assertion that Marsh discloses "clearing the main screen of the showcase ad items on (sic) information in response to the user interrupt." (Office Action page 2). However, even assuming Marsh's system clears the main screen, Marsh is not seen to disclose or suggest clearing scheduled items of information in response to a user interrupt. Marsh is seen to disclose a message display scheduler 700 that stores advertisements for display in a plurality of queues, Q_0 , Q_1 , ... Q_n , as shown in Figure 6. Marsh's queues are seen to specify a schedule, with scheduler 700 stepping through each queue, presenting each advertisement sequentially for a

predetermined period of time, and then repeating the process. (See Figure 7 and column 9, lines 9 to 21). Accordingly, Marsh is not seen to disclose or suggest clearing scheduled items of information, much less disclose or suggest clearing scheduled items of information in response to a user interrupt.

In addition, the Office Action asserts Marsh discloses “logging the time of the interruption, which reads on estimating a time when the user will finish interacting with the user interface.” (Office Action page 2 (citations omitted)). Applicant respectfully disagrees that logging a time when a user interaction commences can be equivalent to estimating a time when the user will finish interacting with the user interface. Moreover, even assuming Marsh’s system logs a time of a user interaction, and that logging the time of interaction is equivalent to estimating a time when the user will finish interacting with the user interface (of which none is conceded), Marsh is still not seen to disclose or suggest performing repeated estimations until user interaction is finished, or rescheduling, for each “estimated time,” items of information for display on the display apparatus in accordance with the values of the priorities at the “estimated time.” Instead, and further to the discussion above, Marsh is seen to disclose near-continuous advertisements, regardless of user interaction: “advertisement display scheduler 700 continuously loops through the basic processing illustrated in FIG. 7 as long as the client system 101 is running.” (column 9, lines 21 to 23).

Furthermore, Marsh is not seen to disclose or suggest actually displaying in accordance with the schedule if the user is not interacting at the “estimated time.” Accordingly, independent Claims 14, 26 and 28 are believed to be allowable.

According to another aspect of the present invention, independent Claim 29 recites a computer-executable method of scheduling items of information for presentation on an output device. The method comprises the steps of (a) calculating a priority for each item of information at a first time, (b) placing one or more of the items into a schedule in accordance with the calculated priorities, wherein an item having a maximum calculated priority is placed at a first available slot in the schedule, the schedule determining an order for presenting the items of information on the output device, (c) checking whether the output device is being used, and (d) rescheduling the schedule if said checking step indicates that the output device is being used. The rescheduling comprises (d)(i) clearing the schedule, (d)(ii) calculating a further priority for each item of information at a second time at which the output device is not being used, and (d)(iii) placing one or more of the items into the schedule for presentation on the output device in accordance with the further priorities, wherein an item having a maximum further priority is placed at the first available slot in the schedule.

Independent Claims 32 and 33 are apparatus and computer program product claims, respectively, that correspond generally to independent Claim 29.

The applied art is not seen to disclose or suggest the features of independent Claims 29, 32 and 33, and in particular, is not seen to disclose or suggest at least the features of rescheduling the schedule if the checking step indicates that the output device is being used, wherein the rescheduling step comprises the steps of (1) clearing the schedule, (2) calculating a further priority for each item of information at a second time at which the output device is not being used, and (3) placing one or more of the items into the schedule

for presentation on the output device in accordance with the further priorities, wherein an item having a maximum further priority is placed at the first available slot in the schedule.

While Marsh's banner advertisements may be "interactive," Marsh's provision of additional information is not seen to disclose or suggest rescheduling the schedule if the checking step indicates that the output device is being used, much less disclose a rescheduling step that comprises the steps of (1) clearing the schedule, (2) calculating a further priority for each item of information at a second time at which the output device is not being used, and (3) placing one or more of the items into the schedule for presentation on the output device in accordance with the further priorities, wherein an item having a maximum further priority is placed at the first available slot in the schedule.

In entering its rejection of Claim 29, the Office Action did not explain how it had interpreted Marsh so as to meet the terms of the claim. For his part, Applicant believes that Marsh is different from Claim 29, as described above, such that a rejection over Marsh cannot be sustained. If the rejection is maintained, the Examiner is requested to provide a clear explanation of his interpretation of Marsh, in keeping with the statutory mandate of 35 U.S.C. § 132 and the guidelines of MPEP § 707.07(f).

Allowance of Claims 29, 32 and 33 is respectfully requested.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael K. O'Neill", is written over a horizontal line.

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